



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,353	02/05/2004	William R. Ratcliffe	024-25-001	6816

23935 7590 08/09/2005

KOPPEL, JACOBS, PATRICK & HEYBL
555 ST. CHARLES DRIVE
SUITE 107
THOUSAND OAKS, CA 91360

EXAMINER

MAY, ROBERT J

ART UNIT PAPER NUMBER

2875

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,353

Applicant(s)

RATCLIFFE, WILLIAM R.

Examiner

Robert May

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-13 and 28-32 is/are rejected.
- 7) ☒ Claim(s) 5, 10, 14-27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Le Creff (US Pat. 4,990,971). Le Creff discloses in Figure 1, a light emitting diode band with first and second connecting strips (2,3) that are conductive and made from copper, zinc, brass, or aluminum (Col. 3, Lines 47-49) and a plurality of light emitting elements or crystals (1a) are positioned between the strips. A conductive resin, which inherently has a resistive characteristic, is used on the cathode or anode surface of the crystal for soldering the connecting strips to and end of the crystal (Col. 3, Lines 28-30).

Claims 4, 6-9, & 11-13, are rejected under 35 U.S.C. 102(b) as being anticipated by Klinke (US Pat 5,404,282). Klinke discloses in Figure 5, a plurality of wire bonds (24, 26) coupling the LED (20) to each of the two conductors (30,28). An insulator (18) made of molded epoxy resin, which encapsulates the LED (18) permits coupling of the LED (18) to each of the conductors (Col. 5, Lines 32-39). Furthermore, Klinke discloses in Fig 3, resistive members or thin films (24,26) providing a low resistance mechanical and electrical connection (Col 8, Lines 62). Klinke discloses in Figure 8, a plurality of tabs for mechanically coupling a lead (24) from the LED to the Bus bar or

Art Unit: 2875

conducting member (Col 9, Lines 66-68) for establishing an intimate interface between the lead of the LED and the conducting member: 30,28 (Col 10, Line 10).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Creff as applied to Claims 1-3 and further in view of Coates (US Pat 6,039,458). Le Creff discloses all of the elements as claimed in Claims 1-3, but fails to disclose a polymer tube that encloses the first and second conductors, light emitting elements and resistive members. However, Coates discloses in Figures 1 & 4-5, a plastic tube that encapsulates a string light assembly to protect the light string (Abstract). Therefore, it would be obvious to one of ordinary skill in the art to modify the LED network of Le Clef

Art Unit: 2875

by encapsulating the network with a clear plastic tube in order to protect the LED network.

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Creff in view of Coates as applied to Claims 28-29 and further in view of Showers (US Pat 6,609,813). While Le Creff in view of Coates discloses all of the elements as claimed in Claims 28-29, they fail to disclose a mounting surface, mounting flange or extending rib disposed upon the polymer member. However, Showers discloses in figures 1-2, a rib, flange or mounting surface (20) for allowing the tube to be mounted to a bracket as shown in Figures 3-4. Therefore, it would be obvious to one of ordinary skill in the art to modify the teachings of Le Creff in view of Coates with the mounting ribs, flange or surface of Showers so that the polymer tube maybe mounted to a wall via bracket as disclosed in Figures 3-4.

Allowable Subject Matter

Claims 5,10,14-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: the prior art does not teach or suggest a lighting apparatus as claimed in Claim 1 with an insulator or spacer carried on a conductor where the spacer or conductor defines a plurality of apertures for receiving a light emitting element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hart (US Pat 5,060,027) discloses a light emitting diode array with two conductive members disposed on each of two sides of the array. Slayden (US Pat 6,361,186) discloses a neon light for LED's using a plastic tube with mounting surfaces. Oohata (US Pat 6,770,960) discloses a semiconductor crystal for emitting light with a pair of conductors disposed on each of the two sides of the crystal.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

Art Unit: 2875

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800